National Aeronautics and Space Administration

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NASA's Michoud Assembly Facility

A component of NASA's Marshall Space Flight Center

For more than half a century, Michoud Assembly Facility in eastern New Orleans has been NASA's premiere manufacturer and assembler of large-scale space structures and systems. It is a government-owned, contractor-operated facility managed by NASA's Marshall Space Flight Center in Huntsville, Ala.

During the Apollo Program in the 1960s, Michoud built the first stages of the Saturn I, IB and Saturn V rockets that took America's astronauts first to low Earth orbit and then on to the moon. In the decades after Apollo, Michoud was responsible for designing, manufacturing and assembling the largest single element of the space shuttles, the 27.6-foot-diameter, 15-story-tall external tank.

Today, Michoud's unique capabilities and proven expertise are at work on NASA's Space Launch System (SLS), the next-generation rockets and vehicles that will carry explorers and equipment to deep space. Michoud is building the Orion Multi-Purpose Crew Vehicle and the core propulsion stage for the SLS — the most powerful rocket in history.

Facilities and Capabilities

The Michoud Assembly Facility is located on 832 acres of land that in the 1700s was part of a French Royal land grant and later became the site of a sugar cane plantation and refinery operated by Antoine Michoud. The U.S. government purchased the land in 1940 and built a production facility that today provides 43 acres of advanced manufacturing space under one roof. It was used to manufacture cargo aircraft, tank engines and more before NASA acquired the facility in 1961.

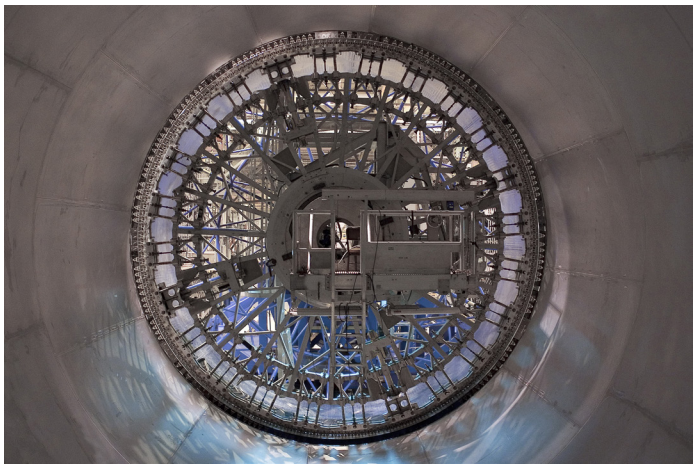
An aerial view of the main building at Michoud Assembly Facility, which features more than 43 acres of advanced manufacturing under one roof and convenient interstate, railway and port access. (NASA/MSFC/MAF)

The frame of a plasma weld lathe that was used to build the 27.6-foot-diameter, 15-story-tall external tank for NASA's space shuttles is seen at left on the main aisle of Building 103 at Michoud Assembly Facility. The facility has a total of more than 2.2 million square feet of manufacturing space. (NASA/MSFC/MAF)

The list of state-of-the-art manufacturing capabilities available at Michoud includes friction stir welding, composite materials fabrication and curing, non-destructive evaluation, fiber placement machines, gantry machining centers, advanced laboratory services, build-to-print part/component fabrication, modeling and simulation services, and much more.

Michoud also features 900,000 square feet of office space; 400,000 square feet of warehouse space; 200,000 square feet of site operations; more than 200 acres of green space for expansion; an extensive overhead crane network; and more than 2.2 million square feet of manufacturing space, including open high-bay areas and a 45,000-square-foot Vertical Assembly Building for the integration and stacking of large-scale structures.

The facility has Interstate Highway and railway access, and a port connecting to the Mississippi River and Gulf of Mexico. The Michoud Canal provides a 25-foot-deep by 250-foot-wide ship channel and an 800-by-800-foot turning basin to serve barge traffic.



A complex structure inside a barrel that became a space shuttle external tank holds the metal round during the weld assembly. The Michoud Assembly Facility has for more than 50 years specialized in the advanced manufacture of large-scale space structures and systems. (NASA/MSFC/MAF)

Michoud is a multi-tenant community that includes NASA and its aerospace contractors, the U.S. Coast Guard, the U.S. Department of Agriculture National Finance Center and more, employing more than 2,600 people on-site. The facility's location allows the space agency and Michoud tenants to take advantage of leading-edge manufacturing, welding, fabrication and material evaluation techniques developed by NASA and its academic and industry partners. Michoud is also home to the National Center for Advanced Manufacturing, a partnership among NASA, the state of Louisiana, Louisiana State University and the University of New Orleans.

For more information about NASA's Michoud Assembly Facility, visit:

http://www.nasa.gov/centers/marshall/michoud/index.html

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